WHAT IS CLAIMED IS:

1. An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

computer readable program code means for causing a computer to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester, the retrieval keyword from the Web access log; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and create first relation data indicating a relation between the qualitative evaluation value and a retrieval keyword which is input in the access sequence.

2. An article of manufacture according to claim 1, further comprising:

computer readable program code means for causing
a computer to calculate a quantitative evaluation value
of the access sequence based on a quantitative
evaluation rule for defining the quantitative

5 evaluation value of a retrieval result of the retrieval
system, and create second relation data indicating
a relation of the retrieval keyword which is input in
the access sequence, the qualitative evaluation value
and the quantitative evaluation value.

10   3. An article of manufacture according to
claim 2, further comprising:

   computer readable program code means for causing
a computer to create a graph indicating a relation of
the qualitative evaluation value and the quantitative

15 evaluation value based on the second relation data.

   4. An article of manufacture according to
claim 2, wherein

   the quantitative evaluation value comprises a need
value for a retrieval result which increases as the

20 number of inputs of the retrieval keyword increases;
and

   the quantitative evaluation rule comprises a rule
under which the need value increases as the number of
inputs of the retrieval keyword increases.

25   5. An article of manufacture according to
claim 2, wherein

   the Web access log further relates access time

data to the first identification data and the second identification data; and

the quantitative evaluation value calculating program code means creates the second relation data for each time period based on the access time data, and which further comprises:

computer readable program code means for causing a computer to create trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value based on the second relation data for each time period.

6. An article of manufacture according to claim 5, wherein

the Web access log further relates an access time data to the first identification data and the second identification data; and

the quantitative evaluation value calculating program code means creates the second relation data for each time period based on the access time data, and which further comprises:

computer readable program code means for causing a computer to calculate the qualitative evaluation value and the quantitative evaluation value for each category and for each time period based on the second relation data and category data which relates the retrieval keyword to a category to which the keyword

belongs; and

computer readable program code means for causing a computer to create trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value for each time period and each category.

7. An article of manufacture according to claim 6, wherein the trend data obtaining program code means comprises:

computer readable program code means for causing a computer to detect a region to which the retrieval keyword belongs of regions determined by the boundaries at each time period;

computer readable program code means for causing a computer to determine whether the retrieval keyword belonging region changes; and

computer readable program code means for causing a computer to add a message corresponding to a change in the region to a retrieval keyword in which the region is changed, and

the trend data includes data indicating a result produced by adding the message to the retrieval keyword in which the region is changed.

8. An article of manufacture according to claim 5, wherein the trend data obtaining program code means calculates a moving distance and a moving

direction of the retrieval keyword at each switching of the time period based on the qualitative evaluation value and the quantitative evaluation value of each time period, and

the trend data includes data indicating the moving distance and the moving direction of the retrieval keyword at each switching of the time period.

9. An article of manufacture according to claim 5, wherein the trend data obtaining program code means comprises:

computer readable program code means for causing a computer to calculate a moving distance of the retrieval keyword at each switching of each time period based on the qualitative evaluation value and the quantitative evaluation value of the retrieval keyword at each time period;

computer readable program code means for causing a computer to determine whether or not the moving distance exceeds a threshold;

computer readable program code means for causing a computer to acquire the moving direction of the retrieval keyword when the moving distance exceeds the threshold; and

computer readable program code means for causing a computer to add a message corresponding to the moving direction to a retrieval keyword in which the moving distance exceeds the threshold, and

the trend data includes data produced by adding
the message to the retrieval keyword in which the
moving distance exceeds the threshold.

10. An article of manufacture according to
claim 5, further comprising:

computer readable program code means for causing
a computer to arrange indexes indicating the retrieval
keyword of each time period corresponding to the
qualitative evaluation value and the quantitative
evaluation value on a space which adopts the
qualitative evaluation value and the quantitative
evaluation value as multiple axes, based on the trend
data and display a graph by connecting the indexes with
lines corresponding to an elapse order of the time
period.

11. An article of manufacture according to
claim 2, wherein the Web access log relates the first
identification data and the second identification data
to access time data, and

the quantitative evaluation value calculating
program code means creates the second relation data for
each time period based on the access time data, and
which further comprises:

computer readable program code means for causing
a computer to calculate the qualitative evaluation
value and the quantitative evaluation value on the
category of each time period based on category data

which relates the retrieval keyword to a category to which the retrieval keyword belongs and relation data of each time period; and

computer readable program code means for causing a computer to create trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value on the category.

12. An article of manufacture according to claim 11, further comprising:

computer readable program code means for causing a computer to arrange indexes indicating the category of each time period corresponding to the qualitative evaluation value and the quantitative evaluation value on a space which adopts the qualitative evaluation value and the quantitative evaluation value as multiple axes, based on the trend data and display a graph by connecting the indexes with lines corresponding to an elapse order of the time period.

13. An article of manufacture according to claim 1, wherein

the Web access log further relates the second identification data to reference information including a retrieval keyword,

the access sequence extracting program code means comprises a program code means for causing a computer to extract, when the reference information indicates the retrieval system, an access sequence including

an access to contents related to the reference
information,

the retrieval keywords extracting program code
means comprises a program code for causing a computer
5   to extract the retrieval keyword included in the
reference information; and

the qualitative evaluation value calculating
program code means comprises a program code means
for causing a computer to calculate a qualitative
10   evaluation value of the access sequence after the
retrieval keyword included in the reference information
is input.

14.   An article of manufacture according to
claim 1, wherein
15   a retrieval keyword to be analyzed is input in
the access sequence and contents indicated by second
identification data related to the retrieval keyword to
be analyzed are accessed after the retrieval keyword to
be analyzed is input,
20   the qualitative evaluation rule comprises a rule
which, based on the extracted keyword and relation data
between the retrieval keyword to be analyzed and second
identification data indicating contents which increases
a success degree when the contents are accessed after
25   the retrieval keyword to be analyzed is input,
increases the success degree of the access sequence,
and

the qualitative evaluation value comprises the
success degree.

15. An article of manufacture according to
claim 14, wherein the qualitative evaluation rule
increases the success degree as the number of accesses
until the contents to be accessed indicated by the
second identification data related with the retrieval
keyword to be analyzed is accessed after the retrieval
keyword to be analyzed is input, decreases.

16. An article of manufacture according to
claim 1, wherein the Web access log relates the first
identification data and the second identification data
to access time data for each access,

the qualitative evaluation rule comprises a rule
which increases the satisfaction degree of the access
requester as a time interval from an access after the
retrieval keyword is input to a last access increases,
and

the qualitative evaluation value comprises the
satisfaction degree.

17. An article of manufacture comprising a
computer usable medium having computer readable program
code means embodied therein, the computer readable
program code means comprising:

computer readable program code means for causing
a computer to extract an access sequence indicating
a continuous access by a same requester based on a Web

access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

computer readable program code means for causing a computer to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester and the retrieval keyword is input in the access sequence, the retrieval keyword which is input in the access sequence from the Web access log; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and create first relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

18. An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract, based on a Web access log which relates first identification data indicating an access requester, second identification data indicating

contents to be accessed, and reference information,

an access sequence indicating a continuous access

including an access to the contents to be accessed

indicated by the second identification data by a same

5   requester when the reference information indicates

a retrieval system;

computer readable program code means for causing a

computer to extract a retrieval keyword included in the

reference information when the reference information

10   indicates the retrieval system; and

computer readable program code means for causing

a computer to calculate a qualitative evaluation value

of the access sequence after inputting the extracted

retrieval keyword based on a qualitative evaluation

15   rule for defining the qualitative evaluation value of

a retrieval result of the retrieval system, and create

first relation data indicating a relation between the

qualitative evaluation value and the retrieval keyword

corresponding to the access sequence.

20   19. An article of manufacture comprising a

computer usable medium having computer readable program

code means embodied therein, the computer readable

program code means comprising:

computer readable program code means for causing

25   a computer to extract, based on a Web access log which

relates first identification data indicating an access

requester to second identification data indicating

contents to be accessed, a sub-access sequence

indicating a continuous access by a same requester;

computer readable program code means for causing

a computer to extract the retrieval keyword when the

5   Web access log relates second identification data

indicating a retrieval system to a retrieval keyword

input to the retrieval system by the requester; and

computer readable program code means for causing

a computer to calculate a qualitative evaluation value

10   of the sub-access sequence based on a qualitative

evaluation rule for defining the qualitative evaluation

value of a retrieval result of the retrieval system,

and create relation data indicating a relation between

the extracted retrieval keyword and the qualitative

15   evaluation value.

20. An article of manufacture according to

claim 19, wherein the sub-access sequence has

a starting end at which retrieval result contents are

accessed and a terminal end at which a next continuous

20   access starts.

21. An article of manufacture according to

claim 19, wherein the sub-access sequence has

a starting end at which retrieval result contents are

accessed and a terminal end which is a last access

25   preceding to a next starting end.

22. An article of manufacture according to

claim 19, wherein the sub-access sequence has

a starting end at which retrieval result contents are

accessed and a terminal end which is a last access

preceding to a next starting end when the next starting

end is found, and having the starting end and a

5   terminal end at which the continuous access ends when

the next starting end is not found.

23.   A retrieval keyword analyzing system

comprising:

means for extracting an access sequence indicating

10   a continuous access by a same requester based on a Web

access log which relates first identification data

indicating an access requester to second identification

data indicating contents to be accessed;

means for extracting, when the Web access log

15   relates second identification data indicating a

retrieval system to a retrieval keyword input to the

retrieval system by the requester, the retrieval

keyword from the Web access log; and

means for calculating a qualitative evaluation

20   value of the access sequence based on a qualitative

evaluation rule for defining the qualitative evaluation

value of a retrieval result of the retrieval system,

and creating first relation data indicating a relation

between the qualitative evaluation value and a

25   retrieval keyword which is input in the access

sequence.

24.   The retrieval keyword analyzing system

according to claim 23, further comprising:

means for calculating a quantitative evaluation
value of the access sequence based on a quantitative
evaluation rule for defining the quantitative

5   evaluation value of a retrieval result of the retrieval
system, and creating second relation data indicating
a relation of the retrieval keyword which is input in
the access sequence, the qualitative evaluation value
and the quantitative evaluation value.

10   25. A retrieval keyword analyzing system
comprising:

means for extracting an access sequence indicating
a continuous access by a same requester based on a Web
access log which relates first identification data

15   indicating an access requester to second identification
data indicating contents to be accessed;

means for extracting, when the Web access log
relates second identification data indicating a
retrieval system to a retrieval keyword which is input

20   to the retrieval system by the requester and the
retrieval keyword is input in the access sequence, the
retrieval keyword which is input in the access sequence
from the Web access log; and

means for calculating a qualitative evaluation

25   value of the access sequence based on a qualitative
evaluation rule for defining the qualitative evaluation
value of a retrieval result of the retrieval system,

and creating first relation data indicating a relation
between the extracted retrieval keyword and the
qualitative evaluation value.

26. A retrieval keyword analyzing system
comprising:

means for extracting, based on a Web access log
which relates first identification data indicating an
access requester, second identification data indicating
contents to be accessed, and reference information,
an access sequence indicating a continuous access
including an access to the contents to be accessed
indicated by the second identification data by a same
requester when the reference information indicates
a retrieval system;

means for extracting a retrieval keyword included
in the reference information when the reference
information indicates the retrieval system; and

means for calculating a qualitative evaluation
value of the access sequence after inputting the
extracted retrieval keyword based on a qualitative
evaluation rule for defining the qualitative evaluation
value of a retrieval result of the retrieval system,
and creating first relation data indicating a relation
between the qualitative evaluation value and the
retrieval keyword corresponding to the access sequence.

27. A retrieval keyword analyzing system
comprising:

means for extracting, based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed, a sub-access

5 sequence indicating a continuous access by a same requester and having a starting end at which retrieval result contents are accessed and a terminal end at which a next continuous access starts;

means for extracting the retrieval keyword when

10 the Web access log relates second identification data indicating a retrieval system to a retrieval keyword input to the retrieval system by the requester; and

means for calculating a qualitative evaluation value of the sub-access sequence based on a qualitative

15 evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

20 28. A retrieval keyword analyzing method comprising the steps of:

extracting an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data

25 indicating an access requester to second identification data indicating contents to be accessed;

extracting, when the Web access log relates second

identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester, the retrieval keyword from the Web access log; and

5   calculating a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating first relation data indicating a relation between the

10   qualitative evaluation value and a retrieval keyword which is input in the access sequence.

29. The retrieval keyword analyzing method according to claim 28, further comprising the step of:

calculating a quantitative evaluation value of the

15   access sequence based on a quantitative evaluation rule for defining the quantitative evaluation value of a retrieval result of the retrieval system, and creating second relation data indicating a relation of the retrieval keyword which is input in the access

20   sequence, the qualitative evaluation value and the quantitative evaluation value.

30. The retrieval keyword analyzing method according to claim 29, wherein

the Web access log further relates access time

25   data to the first identification data and the second identification data; and

the quantitative evaluation value calculating

means creates the second relation data for each time period based on the access time data, and which further comprises the step of:

creating trend data for the retrieval keyword, the
5   trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value based on the second relation data for each time period.

31. The retrieval keyword analyzing method according to claim 29, wherein

10   the Web access log further relates an access time data to the first identification data and the second identification data; and

the quantitative evaluation value calculating means creates the second relation data for each time
15   period based on the access time data, and which further comprises the steps of:

calculating the qualitative evaluation value and the quantitative evaluation value for each category and for each time period based on the second relation data
20   and category data which relates the retrieval keyword to a category to which the keyword belongs; and

creating trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value
25   for each time period and each category.

32. A retrieval keyword analyzing method comprising the steps of:

extracting an access sequence indicating a
continuous access by a same requester based on a Web
access log which relates first identification data
indicating an access requester to second identification

5   data indicating contents to be accessed;

extracting, when the Web access log relates second
identification data indicating a retrieval system to
a retrieval keyword which is input to the retrieval
system by the requester and the retrieval keyword is

10   input in the access sequence, the retrieval keyword
which is input in the access sequence from the Web
access log; and

calculating a qualitative evaluation value of the
access sequence based on a qualitative evaluation rule

15   for defining the qualitative evaluation value of a
retrieval result of the retrieval system, and creating
first relation data indicating a relation between
the extracted retrieval keyword and the qualitative
evaluation value.

20   33.   A retrieval keyword analyzing method
comprising the steps of:

extracting, based on a Web access log which
relates first identification data indicating an access
requester, second identification data indicating

25   contents to be accessed, and reference information,
an access sequence indicating a continuous access
including an access to the contents to be accessed

indicated by the second identification data by a same

requester when the reference information indicates

a retrieval system;

extracting a retrieval keyword included in the

5   reference information when the reference information

indicates the retrieval system; and

calculating a qualitative evaluation value of the

access sequence after inputting the extracted retrieval

keyword based on a qualitative evaluation rule for

10   defining the qualitative evaluation value of a

retrieval result of the retrieval system, and creating

first relation data indicating a relation between the

qualitative evaluation value and the retrieval keyword

corresponding to the access sequence.

15   34. A retrieval keyword analyzing method

comprising the steps of:

extracting, based on a Web access log which

relates first identification data indicating an access

requester to second identification data indicating

20   contents to be accessed, a sub-access sequence

indicating a continuous access by a same requester

and having a starting end at which retrieval result

contents are accessed and a terminal end at which

a next continuous access starts;

25   extracting the retrieval keyword when the Web

access log relates second identification data

indicating a retrieval system to a retrieval keyword

input to the retrieval system by the requester; and

calculating a qualitative evaluation value of the sub-access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.